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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/518,395	01/09/2006	Lothar Goechlich	08997.0005	8215

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EXAMINER

MAYO III, WILLIAM H

ART UNIT PAPER NUMBER

2831

DATE MAILED: 07/06/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/518,395

Applicant(s)

GOEHLICH, LOTHAR

Examiner

William H. Mayo III

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 30-58 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 30-58 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 17 December 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 12/17/04 & 1/9/06.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Priority

1. Applicant's claim for the benefit of a prior-filed application under 35 U.S.C. 119(e) or under 35 U.S.C. 120, 121, or 365(c) is acknowledged. Applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. 120 as follows:

This application is claiming the benefit of prior-filed nonprovisional application No. PCT/EP02/07077 under 35 U.S.C. 120, 121, or 365(c). Copendency between the current application and the prior application is required. Since the applications are not copending, the benefit claim to the prior-filed nonprovisional application is improper. Applicant is required to delete the reference to the prior-filed application from the first sentence(s) of the specification, or the application data sheet, depending on where the reference was originally submitted, unless applicant can establish copendency between the applications.

If applicant desires to claim the benefit of a prior-filed application under 35 U.S.C. 120, a specific reference to the prior-filed application in compliance with 37 CFR 1.78(a) must be included in the first sentence(s) of the specification following the title or in an application data sheet. For benefit claims under 35 U.S.C. 120, 121 or 365(c), the reference must include the relationship (i.e., continuation, divisional, or continuation-in-part) of the applications.

If the instant application is a utility or plant application filed under 35 U.S.C. 111(a) on or after November 29, 2000, the specific reference must be submitted during the pendency of the application and within the later of four months from the actual filing date of the application or sixteen months from the filing date of the prior application. If the application is a utility or plant application which entered the national stage from an international application filed on or after November 29, 2000, after compliance with 35 U.S.C. 371, the specific reference must be submitted during the pendency of the application and within the later of four months from the date on which the national stage commenced under 35 U.S.C. 371(b) or (f) or sixteen months from the filing date of the prior application. See 37 CFR 1.78(a)(2)(ii) and (a)(5)(ii). This time period is not extendable and a failure to submit the reference required by 35 U.S.C. 119(e) and/or 120, where applicable (CA), within this time period is considered a waiver of any benefit of such prior application(s) under 35 U.S.C. 119(e), 120, 121 and 365(c). A benefit claim filed after the required time period may be accepted if it is accompanied by a grantable petition to accept an unintentionally delayed benefit claim under 35 U.S.C. 119(e), 120, 121 and 365(c). The petition must be accompanied by (1) the reference required by 35 U.S.C. 120 or 119(e) and 37 CFR 1.78(a)(2) or (a)(5) to the prior application (unless previously submitted), (2) a surcharge under 37 CFR 1.17(t), and (3) a statement that the entire delay between the date the claim was due under 37 CFR 1.78(a)(2) or (a)(5) and the date the claim was filed was unintentional. The Director may require additional information where there is a question whether the delay was

unintentional. The petition should be addressed to: Mail Stop Petition, Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

If the reference to the prior application was previously submitted within the time period set forth in 37 CFR 1.78(a), but not in the first sentence(s) of the specification or an application data sheet (ADS) as required by 37 CFR 1.78(a) (e.g., if the reference was submitted in an oath or declaration or the application transmittal letter), and the information concerning the benefit claim was recognized by the Office as shown by its inclusion on the first filing receipt, the petition under 37 CFR 1.78(a) and the surcharge under 37 CFR 1.17(t) are not required. Applicant is still required to submit the reference in compliance with 37 CFR 1.78(a) by filing an amendment to the first sentence(s) of the specification or an ADS. See MPEP § 201.11.

Oath/Declaration

2. The oath or declaration is defective. A new oath or declaration in compliance with 37 CFR 1.67(a) identifying this application by application number and filing date is required. See MPEP §§ 602.01 and 602.02.

The oath or declaration is defective because:
The specification to which the oath or declaration is directed has not been adequately identified. See MPEP § 602.

3. Specifically, the US application in which the present application claims priority to has not been provided in the oath/declaration.

Information Disclosure Statement

4. The information disclosure statements filed December 17, 2004 and January 9, 2006 have been submitted for consideration by the Office. They have been placed in the application file and the information referred to therein has been considered.

Drawings

5. The drawings are objected to because Figures 3 & 8 lacks the proper cross-hatching which indicates the type of materials, which may be in an invention.

Specifically, the cross hatching to indicate the conductor and insulative materials is improper. The applicant should refer to MPEP Section 608.02 for the proper cross-hatching of materials. Correction is required.

In addition to Replacement Sheets containing the corrected drawing figure(s), applicant is required to submit a marked-up copy of each Replacement Sheet including annotations indicating the changes made to the previous version. The marked-up copy must be clearly labeled as "Annotated Sheets" and must be presented in the amendment or remarks section that explains the change(s) to the drawings. See 37 CFR 1.121(d)(1). Failure to timely submit the proposed drawing and marked-up copy will result in the abandonment of the application.

Specification

6. Applicant is reminded of the proper language and format for an abstract of the disclosure.

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The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

7. The abstract of the disclosure is objected to because in lines 2 & 3, it contains the term "comprising", which is improper claim language for the abstract. The applicant should replace the term with --having--to provide the abstract with proper language.

Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

9. Claims 30-33, 36-37, 39-44, 46, 49, 54-55, and 58 are rejected under 35 U.S.C. 102(b) as being anticipated by Goehlich et al (Pat Num EP 1170846, herein referred to as Goehlich). Goehlich discloses a method of building a termination of an electrical cable (CA) (CA) (Fig 2) wherein the cost of manufacturing the outdoor termination and the amount of maintenance work can be reduced (abstract).

Specifically, with respect to claim 30, Goehlich discloses a method of terminating an

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electrical cable (CA) comprising a termination (OT) comprises an outer insulator body (2), a substantially longitudinally extended interior member (at 5) comprising said electrical cable (CA) to be terminated, said cable (CA) comprising a conductor (5.1) for carrying load; an insulating material (3) filled in a cavity between said outer insulator body (2) and said interior member (at 5); and means (air not numbered) for accommodating the volume expansions of said insulating material (3) within said cavity, the method comprising the steps of: creating said cavity by introducing said interior member (at 5) into said outer insulator body (2); filling said insulating material (3) into said cavity (Col 9, lines 10-38); sealing said termination (Col 8, lines 45-58); and placing a volume change compensation member (1, air) into said cavity, said volume change compensation member (1, air) having a predetermined volume to accommodate volume expansions of said insulating material (3) within said cavity (Col 4, lines 54-58). With respect to claim 31, Goehlich discloses the method of placing the volume change compensation member (1) into the cavity is performed before the step of filling in the insulating material (3, i.e. air exist there before the filling material is inserted). With respect to claim 32, Goehlich discloses the method of filling said insulating material (3) into said cavity comprises the steps of filling an insulating filler (3.1) and an insulating compound (3.2). With respect to claim 33, Goehlich discloses the method of placing said volume change compensation member (1) is carried out after the step of filling said insulating filler (3, i.e. air exist in the opening at 1 after the filling material is inserted). With respect to claim 39, Goehlich discloses that method comprising the step of selecting the predetermined volume of the volume change compensation member (1)

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depending on the temperature of the insulating material (3, Col 4, lines 41-58). With respect to claim 40, Goehlich discloses the method of selecting the predetermined volume of the volume change compensation member (1) depending on the ambient temperature range of the area where said termination has to be installed (Col 4, lines 5-25). With respect to claim 41, Goehlich discloses the method comprising the step of removing the volume change compensation member (1) after the step of filling said insulating material (3) into said cavity (i.e. after the termination is placed in the field and the termination heats up the insulation material will expand into the open space thereby removing the air from the termination). With respect to claim 42, Goehlich discloses a termination of an electrical cable (CA) comprising: an outer insulator body member (2); a substantially longitudinally extended interior member (at 5) comprising said electrical cable (CA) to be terminated, said cable (CA) comprising a conductor (5.1) for carrying load; an insulating material (3) filled in a cavity between said outer insulator body (2) and said interior member (at 5); and means (air not numbered) for accommodating the volume expansions of said insulating material (3) within said cavity, comprising: a volume change compensation member (1) having a predetermined volume to ensure the accommodation of said volume expansions (Col 4, lines 40-58). With respect to claim 43, Goehlich discloses that the volume change compensation member (1) compensates the volume expansions of the insulating material (3) by changing its own volume e after the termination is placed in the field and the termination heats up the insulation material will expand into the open space thereby removing the air from the termination). With respect to claim 44, Goehlich

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discloses that the volume change compensation member (1, air) is compressible. With respect to claim 46, Goehlich discloses that the volume change compensation member (1) is a hollow void (i.e. hollow body member). With respect to claim 49, Goehlich discloses that the volume change compensation member (1) is placed in the upper part of the termination (Fig 2). With respect to claim 54, Goehlich discloses that the hollow body (1) has an outer skin (rim of 2) and a compressible interior space (Fig 2). With respect to claim 55, Goehlich discloses that the compressible interior space (at 1) is filled with gas (i.e. air, Fig 2). With respect to claim 58, Goehlich discloses that the termination (Fig 2) further comprises means (4) for controlling stress concentrations (Col 7, lines 5-10).

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

12. Claims 34-35, 38, 45, 47-48, 50-53, and 56 are rejected under 35 U.S.C. 103(a) as being unpatentable over Goehlich (Pat Num EP 1170846) in view of Abisso et al (Pat Num 6,235,992, herein referred to as Abisso). Goehlich discloses a method of building a termination of an electrical cable (CA) (CA) (Fig 2) wherein the cost of manufacturing the outdoor termination and the amount of maintenance work can be reduced (abstract).

However, Goehlich doesn't specifically disclose the volume change compensation member being a solid body (claims 34 & 48), nor the volume change compensation member is a foam body (claims 35 & 45), nor the said volume change compensation member is an inflatable body (claims 38 & 47), nor the foam body being electrically insulating or semi-conducting (claim 50), nor the foam body being closed cell material (claim 51), nor the foam body containing encapsulating chemicals (claim 52), nor the foam body containing water absorbing materials (claim 53), nor the foam body being inflated with gas (claim 56).

Abisso teaches an electrical device (Figs 1-3) for medium and high voltage transmission having improved chemical and physical characteristics such as dielectric strength and compressibility (Col 1, lines 10-15). Specifically, with respect to claims 34 & 48, Abisso discloses an insulator (100) for usage with a cable termination (Col 1, lines 15-27), wherein the insulator (100) comprises an interior compressible filler (4, i.e. volume compensation member), wherein the volume change compensation member (4) may be a solid body (i.e. silicone, Col 4, lines 1-35, after curing from a liquid state, Col 4, lines 1-35). With respect to claim 35 & 45, Abisso teaches that the volume change compensation member (4, i.e. silicone) may be a foam body (Col 1, lines 45-

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50). With respect to claims 38 & 47, Abisso teaches that the volume change compensation member (4) may be an inflatable body, containing microspheres (Col 2, lines 58-67). With respect to claim 50, Abisso teaches that the foam body (i.e. silicone) is electrically insulating (Col 4, lines 1-15). With respect to claim 51, Abisso teaches that the foam body (i.e. silicone) is a closed cell material (i.e. solid foam, Col 1, lines 48-50). With respect to claim 52, Abisso teaches that the foam body (4) may contain encapsulating chemicals (i.e. organosilicon crosslinker, Col 3, lines 15-16). With respect to claim 53, Abisso teaches that the foam body (4) may contain water absorbing materials (i.e. microspheres, Col 2, lines 62-67). With respect to claim 56, Abisso teaches that the foam body (4) may be semisolid, thereby resulting in air being placed in the foam (i.e. inflated with gas, Col 1, lines 48-50).

With respect to claims 34-35, 38, 45, 47-48, 50-53, and 56, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the termination of Goehlich to comprise the volume compensation member as taught by Abisso because Abisso teaches that such a configuration provides an electrical device (Figs 1-3) commonly utilized with medium and high-voltage transmission having improved chemical and physical characteristics such as dielectric strength and compressibility (Col 1, lines 10-15) and improves compressibility in order to be applicable within a wide functioning temperature range without requiring compensating volumes (Col 2, lines 25-30).

Conclusion

13. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. They are Metra (Pat Num 4,327,245), Isotton (Pat Num 4,204,083), Goehlich et al (Pat Num 6,759,595), Boetter et al (Pat Num 2004/0129449 A), Portas et al (Pat Num 2002/0153163 A), Portas et al (Pat Num 6,576,846), Dejean (Pat Num 4,757,159), Carlson et al (Pat Num 5,878,851), Lusk et al (Pat Num 3,758,699), Lusk (Pat Num 3,796,821), Mashikian (Pat Num 3,876,820), Dupont (Pat Num 4,555,588), Thompson (Pat Num 5,130,495), Reynaert (Pat Num 4,943,985), and Wandmacher et al (Pat Num 6,340,794), all of which disclose various electrical terminations.

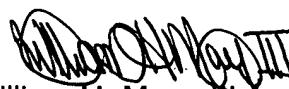
Communication

14. Any inquiry concerning this communication or earlier communications from the examiner should be directed to William H. Mayo III whose telephone number is (571)-272-1978. The examiner can normally be reached on M-F 8:30am-6:00 pm (alternate Fridays off).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on (571) 272-2800 ext 31. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



William H. Mayo III
Primary Examiner
Art Unit 2831

WHM III
June 22, 2006